

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-14. (Cancelled)

15. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided in said second electrode layer or between said first electrode layer and said second electrode layer,

wherein said first conductive member is provided at a location in said photoconductive layer for recording which is close to said photoconductive layer for reading.

16. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided in said second electrode layer or between said first electrode layer and said second electrode layer,

wherein said first conductive member is provided on the face of said photoconductive layer for recording which faces said photoconductive layer for reading.

17. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided in said second electrode layer or between said first electrode layer and said second electrode layer,

wherein radiation is projected onto the radiation solid-state detector to store the charges of the quantity corresponding to the dose of the projected radiation in the charge storing section of said radiation solid-state detector as latent image charges for recording of radiation image information as a static latent image in said charge storing section, and

wherein a control voltage to adjust the electric field formed between both electrode layers by a DC voltage applied across the first electrode layer and the second electrode layer in said radiation solid-state detector is applied to said first conductive member.

18. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided in said second electrode layer or between said first electrode layer and said second electrode layer,

further including a radiation image recording device which projects radiation onto the radiation solid-state detector to store the charges of the quantity corresponding to the dose of the projected radiation in the charge storing section of said radiation solid-state detector as latent image charges for recording of radiation image information as a static latent image in said charge storing section, comprising:

first voltage application means which applies a DC voltage across the first electrode layer and the second electrode layer in said radiation solid-state detector, and

control voltage application means for applying, to said first conductive member, a control voltage to adjust the electric field formed between both electrode layers by a DC voltage applied by said first voltage application means.

19. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided between said charge storing section and said second electrode layer.

20. (Currently Amended) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having a first stripe electrode, formed of a plurality of line-shaped electrodes, that have permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided in said second electrode layer,

wherein said first conductive member has a second stripe electrode, formed of a plurality of line-shaped electrodes, and has a shading property with respect to said electromagnetic wave for reading, and

wherein the line-shaped electrodes of the second stripe electrode are arranged so that the line-shaped electrodes of the second stripe electrode and the line-shaped-electrodes of the first stripe electrode are alternately disposed.

21. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided between said charge storing section and said second electrode layer,

wherein radiation is projected onto the radiation solid-state detector to store the charges of the quantity corresponding to the dose of the projected radiation in the charge storing section of said radiation solid-state detector as latent image charges for recording of radiation image information as a static latent image in said charge storing section, and

wherein a control voltage to adjust the electric field formed between both electrode layers by a DC voltage applied across the first electrode layer and the second electrode layer in said radiation solid-state detector is applied to said first conductive member.

22. (Previously Presented) A radiation solid-state detector which has a charge storing section for storing the charges of the quantity corresponding to the dose of the radiation which has been projected, and records radiation image information as a static latent image in said charge storing section,

wherein a first electrode layer having permeability to radiation for recording or light emitted by excitation on the radiation,

a photoconductive layer for recording which exhibits conductivity when irradiated with said radiation for recording or said light,

a photoconductive layer for reading which exhibits conductivity when irradiated with an electromagnetic wave for reading, and

a second electrode layer having permeability to said electromagnetic wave for reading, are provided in this order,

and a first conductive member for outputting an electric signal corresponding to the quantity of the latent image charges stored in said charge storing section formed between said photoconductive layer for recording and said photoconductive layer for reading is provided in said second electrode layer,

further including a radiation image recording device which projects radiation onto the radiation solid-state detector to store the charges of the quantity corresponding to the dose of the projected radiation in the charge storing section of said radiation solid-state detector as latent image charges for recording of radiation image information as a static latent image in said charge storing section, comprising,

first voltage application means which applies a DC voltage across the first electrode layer and the second electrode layer in said radiation solid-state detector, and

control voltage application means for applying, to said first conductive member, a control voltage to adjust the electric field formed between both electrode layers by a DC voltage applied by said first voltage application means.